

**U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Glennallen Field Office
P.O. Box 147
Glennallen, Alaska 99588

Off Road Warriors
DOI-BLM-AK-A020-2014-0016-EA

Applicant: Original Productions Case File:AA093824

June 20, 2014

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1.0 INTRODUCTION

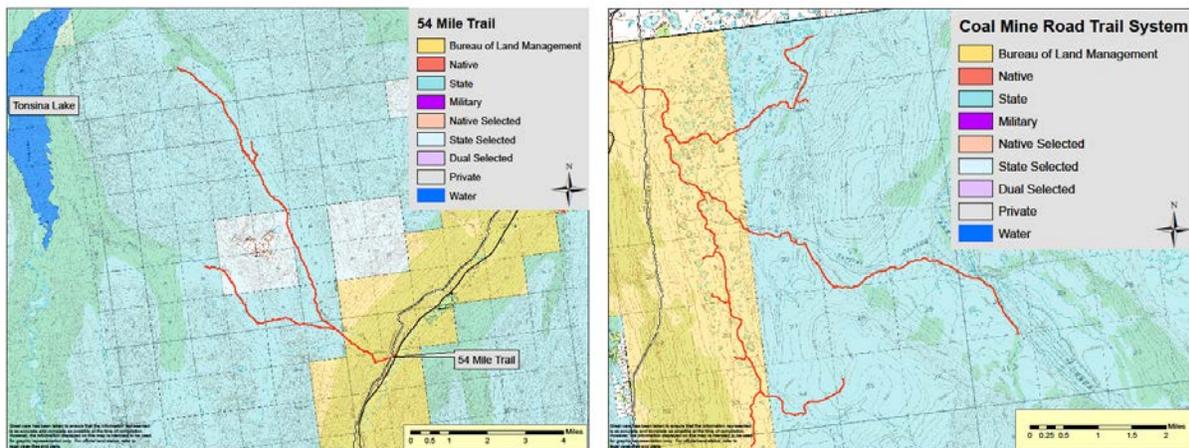
1.1 Summary of Proposed Action

Original Productions LLC has applied for a land use permit to film a show for television production entitled Off Road Warriors. Proposed dates of filming run from June 2 through August 30, 2014. Up to six 4x4 vehicles, three to five OHV's, and a crew of fifteen people would be authorized to film and travel upon specific trails included within this proposal. Additionally basecamps at trailheads may be utilized to accommodate up to thirty personnel. Filming activities would utilize five Go-pro digital cameras and four Sony digital cameras. Trails under consideration for authorization would include Coal Mine Road, Onemile Creek, Swede Lake Trail, and 54 Mile Trail. If permitted, a 2920 Land Use Authorization would be granted to Original Productions for commercial filming on public lands.

The Middle Fork Trail and Permanente Trail were originally identified in the scoping notice for this environmental assessment. During the NEPA process, these trails were dropped from consideration at the request of the applicant.

1.2 Project Area Description and Land Status

Four trails with BLM management interests have been identified by the applicant as final proposed filming locations. These trails traverse BLM managed lands that are either state selected or unencumbered lands. Figure 1 depicts the proposed trails and their associated land status.



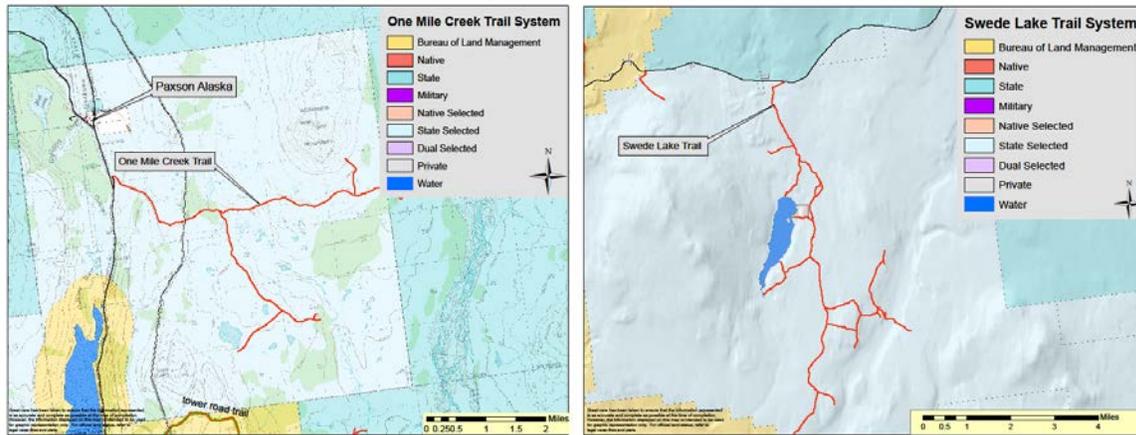


Figure 1. Off Road Warriors Trail Locater Map

1.3 Purpose and Need

The BLM action under consideration is issuance of a 2920 Land Use Authorization to Original Productions for commercial filming on public lands in the summer months of 2014. The need for the action is established by BLM’s responsibility under the Federal Land Policy and Management Act (FLPMA) to respond to requests for the commercial use of public lands. Consistent with 43 CFR § 2920 and section 302 of FLPMA, it is the BLM’s objective or purpose in considering this action, to provide for the orderly and timely processing of proposals for commercial use of the public lands.

1.3.1 Decision to be Made

The decision to be made is whether to issue a commercial filming permit to Original Productions, and, if authorized, what terms and conditions to apply.

1.4 Land Use Plan Conformance

The East Alaska Resource Management Plan and Record of Decision (RMP/ROD) provide the overall long-term management direction for lands encompassed by the proposed project (BLM 2007). The proposed action and alternatives are consistent with the RMP/ROD. Specifically, the proposed action is consistent with the following decisions in the RMP/ROD:

I. LANDS AND REALTY

I-2: Land Use Authorizations

- Land use authorizations include various authorizations and agreements to use BLM lands such as right-of-way grants, road, and temporary use permits under several different authorities including. leases, permits, and easements under section 302 of the Federal Land Policy and Management Act of 1976 (FLPMA)

T. TRAVEL MANAGEMENT AND OHV USE

T-5 Management Actions

- Permitted activities and uses that involve OHV use would contain stipulations stating that OHV use would be consistent with management in limited and closed areas. If necessary, permitted cross-country travel would be stipulated in a manner that minimizes impacts (i.e. winter use or low ground pressure tires). Specific operating procedures related to OHV's can be found in Appendix A: Required Operating Procedures.

APPENDIX A: REQUIRED OPERATING PROCEDURES (ROPs), STIPULATIONS (Stips), and STANDARD LEASE TERMS

A-1 Required Operating Procedures

- ROPs are requirements, procedures, management practices, or design features that the BLM adopts as operational requirements. ROPS would apply to all permitted activities including FLPMA leases and permits, special recreation permits, oil and gas operations, mining Plans of Operation, and Right-Of-Way authorizations. Obviously not all ROPs would apply to all permitted activities. ROPs are selected as part of the site specific analysis that occurs during activity level planning. They are applied as stipulations to permits. The Authorized Officer (AO) or his/her representative is responsible for seeing that the permittee is complying with stipulations of the permit.

1.5 Other Applicable Laws, Regulations, Policies, etc.

The proposed action would be subject to various laws, regulations, and acts including, but not limited to:

- National Historic Preservation Act as Amended 1992
- North America Wetlands Conservation Act of 1989 (as amended 1990 and 1994)
- Executive Order 11987 of May 1977 (Exotic Organisms)
- Executive Order 11990 of May 1977 (Protection of Wetlands)
- Executive Order 11644 of February 1972
- Executive Order 11989 of May 1977
- Migratory Bird Treaty Act of 1918 (as amended 1936, 1960, 1969, 1974, 1978, 1986, and 1989)

1.6 Summary of Public Involvement

A summary of the proposed project was posted to the BLM's national NEPA register website, ePlanning on April 21, 2014. A scoping notice was placed in the Copper River Record, Delta Wind, and Valdez Star the week of May 5, 2014. Notice of the Proposed Action and solicitation of comments were published on the What's Up Alaska list server, and mailed to Ahtna, Incorporated, and the village of Chickaloon on May 1, 2014. A radio announcement was placed on the regional radio station KCHU.

Comment deadline was Friday May 16, 2014. Twenty four comments were received. Two comments were received that raised new issues not identified by the interdisciplinary review team. These issues consisted of addressing the safety of trail users during filming activities and the social perceptions that permitting the proposed activity might depict about allowed uses of public lands. Two comments were received past the comment deadline date of May 16. These two comments did not reveal any new issues or provide any new information not already identified by previous comments.

1.7 Issues Identified / Issues Eliminated from Further Analysis

Scoping revealed the following issues for analysis:

- How would the proposed action affect access and harvest opportunity for federally qualified subsistence users?
- How would the proposed action affect wildlife rearing, sensitive species or migratory birds?
- How would the proposed action affect access and recreational experiences of trail users?
- How would the proposed action and intensity of use affect or alter trail conditions?
- How would the proposed action affect hydrological and soil resources along the proposed trails?

The following issues were identified but eliminated from further analysis for the reasons provided:

- *Effects to anadromous fish.* The trail segments proposed for authorization do not cross any anadromous streams on BLM managed lands.
- *Effects occurring to public lands from camping or staging areas and disposal of human waste.* The project design feature (section 2.4 number 7) included in the alternatives would adequately prevent the expansion of impacted or disturbed areas and issues pertaining to human waste.
- *Effects to the safety of trail users as a result of the proposed activity.* The project design feature (section 2.4 number 8) included in the alternatives would adequately address possible safety issues that could occur in relation to the proposed activity.
- *Effects to Subsistence resources and access.* The BLM is required by Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA) to consider potential impacts to subsistence activities, resources, or access to subsistence activities from project proposals. A complete analysis of Section 810 findings is located on file at the Glennallen Field Office. In summary, there is no reasonably foreseeable significant decrease in the abundance and distribution of harvestable subsistence resources.
- *Effects to Cultural Resources.* The four OHV trails have been previously surveyed for archaeological resources; no heritage or paleontological resources were located in or immediately near those trails. The project is similar to current OHV use of the trail and is unlikely to cause more than one square meter of new surface disturbance in previously disturbed OHV trails. The project is therefore subject to No Further Review under the terms of the ***Protocol for Managing Cultural Resources on Lands Administered by the***

Bureau of Land Management, signed on February 5th, 2014 by the BLM and Alaska State Historic Preservation Officer.

- *Effects to Lands with Wilderness Characteristics.* The proposed activity is occurring along motorized trails that are commonly traveled by, were constructed with, or are maintained by motorized equipment. The BLM has determined that the proposed activity would not take place in Lands with Wilderness Characteristics.
- *Effects related to the spread and establishment of invasive species.* The project design features included in the alternatives would adequately prevent introduction and establishment of invasive species as a direct result of this project.
- *Effects caused from hazardous material spills associated with motorized vehicles.* The proposed activity would be subject to standard stipulations regarding hazardous materials such as fuel and oil as well as State of Alaska Department of Conservation protocols.
- *Public perception of allowing the proposed activity to occur on public lands.* The applicant will be bonded for any damages occurring to public lands in similar fashion to mining actions, extractive resource operations, or other potential ground disturbing activities. The BLM has no control over how the proposed action may be perceived by a viewing audience and no activities under consideration for authorization exceed those allowable to a private party public land user.
- *Effects to natural quiet.* The proposed activity is occurring along motorized trails that are commonly traveled by, were constructed with, or are maintained by motorized equipment. Natural quiet is only sporadically found along these routes regardless if the activity is permitted or not.

2.0 ALTERNATIVES

2.1 Alternative 1 - No Action Alternative

Under the No Action Alternative, the BLM would deny the request for a 2920 Land Use Authorization and no commercial filming or associated activities would be permitted.

2.2 Alternative 2 - Proposed Action Alternative

The BLM would authorize a 2920 Land Use Authorization to Original Productions for commercial filming on area trails valid from June 1 through August 30, 2014. Up to six 4x4 vehicles, three to five OHV's, and a crew of fifteen people would be authorized to film and travel upon specific trails identified within the authorization. Filming and associated activities could occur for up to 16 hours on each trail. Additionally basecamps at trailheads would be authorized in previously disturbed areas to accommodate up to 30 personnel. Filming activities would utilize five Go-Pro digital cameras and four Sony digital cameras. Construction of sets or intentional alteration of trails or the landscape would not be authorized. Authorized trails would include Coal Mine Road, Onemile Creek, Swede Lake Trail, and 54 Mile Trail. No other use restrictions would be considered under this alternative other than those identified in the table below.

Trail Name	Use Restrictions
Coal Mine Road	Must stay on defined trails consisting of Coal Mine Road from the Richardson Highway to the trail junction at mile 1.63 with Ober Creek Trail. Must stay on existing Ober Creek Trail from its intersection with Coal Mine Road to the end of BLM managed lands, approximately 1.10 miles. Must stay on Coal Mine Road from mile 1.63 to mile 2.79 where it intersects with the Jarvis Creek Trail. Must stay on Jarvis Creek Trail from its intersection with Coal Mine Road to the end of BLM managed lands, approximately .96 miles. Must stay on Coal Mine Road from mile 2.79 to mile 6.21 where it intersects with South Spur trail. Must stay on South Spur trail from its intersection with Coal Mine Road to its termination, approximately .92 miles. Must stay on Coal Mine Road from mile 6.21 to 6.40 to the end of BLM managed lands.
Onemile Creek Trail	Must stay on existing trails
Swede Lake Trail	Must stay on designated routes which are signed with open trail markers. Swede Lake access at mile 3.86 which accesses private property may not be used. Swede Lake Trail intersects with the Gulkana National Wild River corridor at mile 9.46. The Gulkana National Wild River Plan restricts the use of recreational access within the corridor to motorized vehicles weighing less than 1500 lbs. No activities occur within the river corridor
54 Mile Trail	Must stay on existing trail

Figure 2, Proposed Alternative Trail Restrictions

2.3 Alternative 3 – Seasonal Restrictions and Intensity of Use Alternative

The BLM would authorize a 2920 Land Use Authorization to Original Productions for commercial filming on area trails valid from June 1 through August 30, 2014. Up to six 4x4 vehicles, three to five OHV’s, and a crew of 15 people would be authorized to film and travel upon specific trails identified within the authorization. Filming and associated activities could occur for up to 16 hours on each trail. Additionally basecamps at trailheads would be authorized in previously disturbed areas to accommodate up to 30 personnel. Filming activities would utilize five Go-Pro digital cameras and four Sony digital cameras. Construction of sets or

intentional alteration of trails or the landscape would not be authorized. Authorized trails would include Coal Mine Road, Onemile Creek, Swede Lake Trail, and 54 Mile Trail. Under this alternative there are varying restrictions for respective trails. These restrictions are identified below in bold print in Figure 3.

Trail Name	Use Restrictions
Coal Mine Road	Must stay on existing trails consisting of Coal Mine Road from the Richardson Highway to the trail junction at mile 1.63 with Ober Creek Trail. Must stay on existing Ober Creek Trail from its intersection with Coal Mine Road to the end of BLM managed lands, approximately 1.10 miles. Must stay on Coal Mine Road from mile 1.63 to mile 2.79 where it intersects with the Jarvis Creek Trail. Must stay on Jarvis Creek Trail from its intersection with Coal Mine Road to the end of BLM managed lands, approximately .96 miles. Must stay on Coal Mine Road from mile 2.79 to mile 6.21 where it intersects with South Spur trail. Must stay on South Spur trail from its intersection with Coal Mine Road to its termination, approximately .92 miles. Must stay on Coal Mine Road from mile 6.21 to 6.40 to the end of BLM managed lands. To avoid high use recreational periods no filming activity could occur from July 3rd through July 6th.
Onemile Creek Trail	Must stay on existing trails
Swede Lake Trail	Must stay on designated routes which are signed with open trail markers. Swede Lake access at mile 3.86 which accesses private property may not be used. Swede Lake Trail intersects with the Gulkana National Wild River corridor at mile 9.46. The Gulkana National Wild River Plan restricts the use of recreational access within the corridor to motorized vehicles weighing less than 1500 lbs. No activities will occur past or within the river corridor. To allow for proper curing and evaporative drying of trail tread and to mitigate associated impacts to soils no filming activity could occur until June 15. No filming activity could occur from July 3rd through July 6th to avoid high use recreational periods. No filming activity could occur from August 1st through August

	30th to avoid impacts to subsistence users. All motorized vehicles associated with filming activities would be allowed one pass in and one pass out on this trail.
54 Mile Trail	Must stay on existing trail. No filming activity could occur from August 1st through August 30th to avoid impacts to subsistence users.

Figure 3, Proposed Alternative Trail Restrictions

2.4 Design Features and Best Management Practices

The following design features and best management practices would be incorporated to both alternatives to minimize impacts to resources and trail users including, but not limited to: soils, the spread of invasive species, safety of trail users, and native vegetation.

1. All vehicles (4x4 vehicles and OHV's), and transport equipment used on trails are required to be cleaned with high-pressure washing equipment and include but not limited to the insides of bumpers, wheel wells and undercarriages to remove material that can contain weed seeds or other propagates and avoid possible introduction or spread of non-native invasive plant species.
2. The washing of vehicles and equipment shall not occur in or near streams or wetlands.
3. Washing of vehicles and equipment will take place on previously disturbed grounds within the trailhead or staging area prior to transitioning to a new filming location.
4. If heavy precipitation events occur filming activities will cease for a 24 hour drying period. Heavy precipitation will be defined as rainfall exceeding two inches in a 24 hour time period.
5. If moose, caribou, or fledgling birds are encountered on the trails motorized activities will cease until animals have left the immediate vicinity of the filming area.
6. No native vegetation will be removed or damaged attempting to winch or recover vehicles
7. Human waste will be contained in a DEC approved receptacle (porta-potti, rv toilet, etc.) and be disposed of off-site. No human waste will be deposited at or around staging or camping areas.
8. On trails with limited sight distance due to terrain, natural vegetation, curvilinear features of trail, or weather events, a trail flagger shall be utilized to inform oncoming traffic of filming activities, number of vehicles involved, and distance to activities.

2.5 Actions Common to Both Alternatives

Permitted operations will be subject to motorized use restrictions in place for the Tangle Lakes Archaeological District (TLAD) and the Gulkana National Wild River (GNWR) corridor. For the TLAD these restrictions limit the use of motorized vehicles to designated trails between May 16 through October 15 or until such time that adequate snow cover or ground frost is present. In the GNWR corridor motorized use is limited to Swede Lake Trail, Hungry Hollow Trail, Middle Fork Trail, Haggard Creek Trail, Dickey Lake Trail, Twelve Mile Creek Trail, South Middle

Fork Trail, Northeast Middle Fork Trail, Northwest Middle Fork Trail, West Fork Trail, and Fish Lake Trail. Additionally there is a 1500 pound gross vehicle weight limit on vehicles used for recreational purposes. No activities will take place within the river corridor.

The BLM may have a field monitor present during filming operations. On specific trails and at specific locations the BLM may allow for operation of motorized vehicles and filming activities on previously disturbed trail braids. Areas identified for this activity have been surveyed for cultural resources and primarily consist of historic trail braids that have been excavated for fill material for the current trail tread. Operations may be allowed in these identified areas on a case by case basis.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

3.1 ISSUE 1 - HOW WOULD THE PROPOSED ACTIVITY AFFECT ACCESS AND HARVEST OPPORTUNITY FOR FEDERALLY QUALIFIED SUBSISTENCE USERS?

3.1.1 Affected Environment

The trails identified in the summary of the proposed action are all frequently used trails scattered across the Glennallen Field Office boundaries. Two trails (54 Mile Trail and Swede Lake Trail) are of high value to federally qualified subsistence users to access federal un-encumbered lands for opportunities to harvest large game (moose and caribou), small game (grouse, ptarmigan, furbearers, and snowshoe hares), and other subsistence resources (berries, wood, drinking water, etc.) throughout the year. Onemile Creek Trail does not provide access to federally un-encumbered hunting areas for large game, but does provide access to areas used in the gathering of other subsistence resources such as berries, firewood, drinking water, and mushrooms. Coal Mine Road is excluded from this analysis since the trail is within an area that does not have a customary and traditional use determination, as determined by Title 36 CFR 242.16.

Swede Lake Trail and Onemile Creek Trail are located in State of Alaska's Game Management Unit (GMU) 13, subunit B. The Swede Lake Trail is a key access point in the fall for large game, small game, and other subsistence resources, namely berries. In GMU 13, a permitted federal subsistence moose hunt (FM1301) is open annually from August 1 to September 20. In addition, GMU13 also has a permitted federal subsistence caribou hunt (FC1302) that is open annually from August 1 to September 30, and again from October 20 to March 31. Other popular species hunted by federal subsistence users, that do not require a permit, are grouse and ptarmigan hunting, which occur annually from August 10 to March 31. 54 Mile Trail is located in GMU13, subunit D within federal public lands that federally qualified subsistence users use for access to hunting areas for large game (moose and bear), small game (grouse, furbearers, snowshoe hares), and other harvesting of subsistence resources (berries and fire wood).

3.1.2 Direct and Indirect Effects from No Action Alternative

By denying the requested action, federally qualified subsistence users would not be subject to any activities or additional disturbance associated with the proposed action. Federally qualified subsistence users would not have any potential restriction of access or hunting/harvest opportunity with the denial of the requested action. Federally qualified subsistence users would

encounter a more customary trail setting or experience which they have become familiar with over the years.

3.1.3 Direct and Indirect Effects from Proposed Action Alternative

The Proposed Action Alternative could result in user conflicts with federally qualified subsistence users on 54 Mile Trail and Swede Lake Trail during the permitted federal subsistence moose and caribou seasons. In addition, Onemile Creek Trail and Swede Lake Trail are within popular berry harvest areas (La Vine et al., 2014); therefore, user conflicts can arise during the berry-picking season (mid-August to late September). The likely conflict scenario would be the perception of high use in the area as a result of seeing a large number of vehicles and trailers at trailheads, resulting in subsistence user displacement to less crowded areas.

A potential negative affect from the Proposed Action Alternative is from the unlimited, high intensity, use of up to six four wheel drive vehicles, three to five OHV's, and a crew of fifteen people that would be authorized to film and travel upon the trails identified that are used by federally qualified subsistence users. These trails traverse across multiple wet areas that require adequate drying from seasonal runoff and breakup. Wetlands are particularly susceptible to disturbance by ATV movements (Rickard & Brown, 1974; Meyer, 2002; Loomis and Liebermann 2006). The applicant is expecting to be on each trail a max of 16hrs (8hrs in and 8hrs out). If no restrictions are placed on intensity of use and no reclamation is required, areas of these trails may become impassable to subsistence users, therefore restricting access from previously accessible areas.

In 2012, federally qualified subsistence users harvested 71 % of the total moose (42 of 59) and 67% of the total caribou (361 of 537) in GMU 13B (USFWS, 2014), making this a very important area to harvest large game. In 2012, 10% of the moose harvest (6 of 59) occurred near 54-mile trail (USFWS, 2014).

Spruce grouse and to a lesser extent ptarmigan are found throughout the area and common on trails used by federally qualified subsistence users identified in the summary. Federal subsistence users commonly use trails and roads to obtain limits of grouse and ptarmigan. In early June, both female ptarmigan and grouse are incubating eggs and by late June, ptarmigan and grouse eggs have hatched (Ellison, 1974). The hatched broods stay together until late August, when lone juveniles are seen indicating brood break-up (Ellison, 1974).

By staying on existing trails, the Proposed Action Alternative would minimize disturbance to nesting spruce grouse and ptarmigan in the area, with the exception of those few individual nests in very close proximity to the trail. In addition, as the summer progresses, brooding females can be encountered on the trail during filming. With design features that will cease filming when wildlife is encountered until animals have left the immediate vicinity of the filming area the negative effects on individuals encountered will be minimized. The applicant is expecting to be on each trail a max of 16hrs; therefore, the disturbance is not expected to affect grouse or ptarmigan on a population scale. Furthermore, disturbed individual grouse and ptarmigan are expected to return, since they do not tend to disperse away from the area of disturbance (*R. Merizon, personal communications*).

3.1.4 Direct and Indirect Effects from Alternative 3

The result of Alternative 3 would minimize user conflicts with federally qualified subsistence users and prevent splitting of grouse and ptarmigan broods encountered on the trails. By restricting the proposed action from August 1 to August 30, federally qualified subsistence users are free to actively harvest subsistence resources during the peak periods of resource abundance and collection. In addition, the “single pass” restriction to allow for proper curing or drying of trail tread would mitigate associated impacts to soils and would reduce the risk of creating a non-passable areas on the trail. This restriction would also minimize brood splitting of grouse and ptarmigan encountered on or near the trails.

By staying on existing trails, the Alternative 3 would minimize disturbance to nesting spruce grouse and ptarmigan in the area, with the exception of those few individual nests in very close proximity to the trail. In addition, as the summer progresses, brooding females can be encountered on the trail during filming. With design features that will cease filming when wildlife is encountered until animals have left the immediate vicinity of the filming area the negative effects on individuals and broods encountered will be minimized. The applicant is expecting to be on each trail a max of 16hrs; therefore, the disturbance is not expected to affect grouse or ptarmigan on a population scale. Furthermore, disturbed individual grouse and ptarmigan are expected to return, since they do not tend to disperse away from the area of disturbance (*R. Merizon, personal communications*).

Potential negative effects exist on Onemile Creek Trail near recognized berry harvest areas (La Vine et al., 2014); therefore, user conflicts can arise during berry picking season in the month of August.

3.1.5 Cumulative Effects

Beyond the direct and indirect effects explained above, no significant individual or cumulative impacts are anticipated in the Glennallen Field Office lands to access and harvest opportunity for federally qualified subsistence users because of the Proposed Action Alternative or Alternative 3. Given that there would be no direct or indirect effects to access and harvest opportunity for federally qualified subsistence users as a result of the No Action Alternative; therefore, by definition, there is no potential for this alternative to incrementally contribute to cumulative effects.

3.1.6 Recommended Mitigation

It is recommended that BLM request a bond to ensure that any resulting impassable sections of trails be reclaimed so that federally qualified subsistence users maintain access to federal unencumbered public lands to continue to engage in the harvesting of subsistence resources. After any access issues have been resolved via the bonding process, the residual wildlife effects would remain unaffected and remain as stated in the direct and indirect effects.

3.2 ISSUE 2 - HOW WOULD THE PROPOSED ACTIVITY AND INTENSITY AFFECT SENSITIVE SPECIES OR MIGRATORY BIRDS?

3.2.1 Affected Environment

These trails, indicated in the summary, tend to be highly impacted and developed motorized routes. Of the proposed trails affected by this proposed action, Swede Lake trail occurs on a low shrub/lichen vegetation type (Boggs et al., 2012). The low shrub/lichen vegetation type consists of mainly dwarf birch (*Betula nana*) and various lichens (*Cladina* spp.). In the context of migratory birds, the vegetation is a mix of low shrub thicket and medium shrub thicket (Kessel, 1979). This low shrub habitat is favored by Willow Ptarmigan, Savannah Sparrow, Tree Sparrow, White-Crowned Sparrow, and Lincoln's Sparrow; while the medium shrub habitat is favored by Grey-Cheeked Thrush, Arctic Warbler, Wilson's Warbler, and Fox Sparrow (Kessel, 1979). The Onemile Creek Trail begins in the spruce (black & white) vegetation type and gains elevation into more of a low shrub vegetation type (Boggs et al., 2012). Spruce grouse, Gray Jays, Boreal Chickadees, Golden- and Ruby Crowned Kinglets, and White-wing Crossbills favor this coniferous habitat type (Kessel, 1979). Coal Mine Road primarily occurs within the low shrub vegetation type, but also traverses areas of tall shrub and deciduous forest vegetation types (Boggs et al., 2012). Tall shrub are favored by Alder Flycatchers, and Yellow and Blackpoll warblers; while, deciduous forest habitat is favored by ruffed grouse and black-capped chickadees (Kessel, 1979). 54 mile Trail exists primarily in the spruce forest (white and black) vegetation type (Boggs et al, 2012).

Even though site specific information is lacking on what sensitive species or migratory birds inhabit the area around the proposed trails, certain species can be assumed to be present based on the habitat types that are present. The Trumpeter swan and Blackpoll warbler are two sensitive species that favor habitat types that are traversed by the indicated trails (BLM, 2010), and therefore would likely be subject to disturbance by the proposed action. In addition, since the various trails cover multiple habitat types, numerous identified priority species (Sharbaugh, 2007) are likely to occur in the vicinity of the trails.

3.2.2 Direct and Indirect Effects from No Action Alternative

The No Action Alternative would result in no sensitive species or migratory birds being subject to any disturbance activities associated with the proposed action. If the proposed action is denied, there would be no direct or indirect effects if the proposed action. Therefore, sensitive species or migratory bird populations and habitat use would remain in its current state and quality.

3.2.3 Direct and Indirect Effects from Proposed Action Alternative

The Proposed Action Alternative would result in no significant disturbance to vegetation around the trail or adjacent areas used by sensitive species or other migratory birds. The design features of restricting trail riding to established trails and not disturbing native vegetation while attempting to winch or recover vehicles would minimize loss of nesting, brooding, and foraging habitat for sensitive species or migratory birds in the area. Also, the design feature of ceasing

motorized activity if fledgling birds are encountered on the trails would minimize the possibility of incidental take of sensitive species or migratory birds by OHV's on the trail.

A potential negative effect is the noise pollution and high-intensity disturbance caused by several passes of multiple OHV's and a relatively large film crew in the area. There are two known Trumpeter swan (BLM sensitive species) nests that are in proximity (≥ 0.3 miles) of the Onemile Creek Trail and Coal Mine Road traverses tall shrub habitat favored by Blackpoll warblers. Noise can directly affect habitat selection and foraging efficiency by wildlife species because noise may cause wildlife species to move from desirable areas to less desirable areas due to disturbance (Loomis and Lieberman, 2006). Noise pollution also has been shown to elevate migratory bird stress levels (Slabbekoorn et al 2008; Campo et al, 2005; Francis et al., 2009), interfere with warning signals (Slabbekoorn et al 2008, Warren et al, 2006; Francis et al., 2009), can cause nest abandonment (Sinnott, 1990), and is associated with declining bird densities (Reijnen et al, 1995; Kuitunen, 1998; Bayne et al 2008; Francis et al., 2009).

By staying on existing trails, the Proposed Action Alternative would minimize disturbance to nesting sensitive and migratory birds in the area, with the exception of those few individual nests in very close proximity to the trail. In addition, as the summer progresses, brooding females can be encountered on the trail during filming. With design features that will cease filming when wildlife is encountered until animals have left the immediate vicinity of the filming area will minimize the negative effects on individuals encountered.

In conclusion, sensitive species and migratory birds would be temporarily displaced during the proposed action, especially those nesting in close proximity to the trail. The applicant is expecting to be on each trail a maximum of 16 hours. Depending on which period the proposed action takes place, the disturbance and noise can result in nest abandonment and can temporarily reduce the effective foraging area utilized; however, total disturbance is only expected for a few individuals located in close proximity to the trail. Populations of sensitive species and migratory birds are not expected to be negatively affected in the area. In addition, the equipment and film crew would be confined to the established trail area, thus reducing "reaching" impacts from noise and human presence.

3.2.4 Direct and Indirect Effects from Alternative 3

Similar to the Proposed Alternative, Alternative 3 would result in no significant disturbance to vegetation around the trail or adjacent areas used by sensitive species or other migratory birds. The design features of restricting trail riding to established trails and not disturbing native vegetation while attempting to winch or recover vehicles would minimize loss of nesting, brooding, and foraging habitat for sensitive species or migratory birds in the area. Also, the design feature of ceasing motorized activity if fledgling birds are encountered on the trails would minimize the possibility of incidental take of sensitive species or migratory birds by OHV's on the trail.

A negative effect of Alternative 3 is the noise pollution and high-intensity disturbance caused by multiple OHV's and a relatively large film crew on the proposed trails. There are two known Trumpeter swan nests that are in proximity (≥ 0.3 miles) of the Onemile Creek Trail and Coal

Mine Road traverses tall shrub habitat favored by Blackpoll warblers. Noise can directly affect habitat selection and foraging efficiency by wildlife species because noise may cause wildlife species to move from desirable areas to less desirable areas due to disturbance (Loomis and Lieberman, 2006). Noise pollution also has been shown to elevate migratory bird stress levels (Slabbekoorn et al 2008; Campo et al, 2005; Francis et al., 2009), interfere with warning signals (Slabbekoorn et al 2008, Warren et al, 2006; Francis et al., 2009), can cause nest abandonment (Sinnott, 1990), and is associated with declining bird densities (Reijnen et al, 1995; Kuitunen, 1998; Bayne et al 2008; Francis et al., 2009). The Trumpeter swan nests are not expected to be negatively affected because they occur beyond 0.25 miles away from the trail and disturbance does not exceed 14 days (BLM, 2007).

By staying on existing trails, Alternative 3 would minimize disturbance to nesting sensitive and migratory birds in the area, with the exception of those few individual nests in very close proximity to the trail. The date restrictions along Swede Lake and 54 mile trails may concentrate filming during the nesting, brooding periods of sensitive species and migratory birds; therefore, potentially increasing the likelihood of nest abandonment. A restriction of “passes” down the Swede lake trail would lessen the overall negative effect of disturbance during nesting/brooding and diminish the possibility of nest abandonment, due to the proposed action; however, this is not extended to other trails.

In conclusion, sensitive species and migratory birds would be temporarily displaced during commercial filming. Depending on which time period they film, this may cause nest abandonment and would reduce the effective foraging area utilized. The applicant is expecting to be on each trail a max of 16 hours. Depending on which period the proposed action takes place, the disturbance and noise can result in nest abandonment and can temporarily reduce the effective foraging area utilized; however, total disturbance is only expected for a few individuals located in close proximity to the trail. Populations of sensitive species and migratory birds are not expected to be negatively affected in the area. In addition, the equipment and film crew would be confined to the established trail area, thus reducing “reaching” impacts from noise and human presence.

3.2.5 Cumulative Effects

Beyond the direct and indirect effects explained above, no significant individual or cumulative impacts are anticipated in the Glennallen Field Office lands to affect sensitive species or migratory birds because of the Proposed Action Alternative or Alternative 3. Given that there would be no direct or indirect effects sensitive species or migratory birds as a result of the No Action Alternative; therefore, by definition, there is no potential for this alternative to incrementally contribute to cumulative effects.

3.3 ISSUE 3 - HOW WOULD THE PROPOSED ACTIVITY AFFECT RECREATIONAL ACCESS AND EXPERIENCES OF TRAIL USERS?

3.3.1 Affected Environment

The trails identified in the summary of the proposed action are all well-known and well used trails scattered across the field office boundaries. They are highly impacted and developed motorized routes that serve as access points and recreational outlets for public lands. While the conditions, topography, vegetation, and trail surface or tread is variable among the trails, in relation to recreational access and experiences they can be considered in similar fashion. The BLM captures use numbers on some of the trails identified. The following use numbers were obtained from BLM's Recreational Management Information System (RMIS) for Federal fiscal year 2013.

Trail Name	FY 2013 Use Numbers
Coal Mine Road	2384 vehicle counter
Onemile Creek Trail	1000 estimate
Swede Lake Trail	3309 vehicle counter
54 Mile Trail	260 estimate

Figure 4, Trail User Numbers

3.3.2 Direct and Indirect Effects from No Action Alternative

By denying the requested action recreational users would not be subject to activities or actions associated with the commercial filming proposal. Users would encounter a more traditional trail setting or experience that they have become accustomed to. Small portions of trails or very specific sections of trails would not be subject to possible trail tread damage that may occur from the proposed activity which could hinder their access for future use.

3.3.3 Direct and Indirect Effects from Proposed Action Alternative

This alternative contains no date restrictions to accommodate for high use trail periods or to allow for adequate drying of trail tread from seasonal runoff and breakup. Conflicts could arise during the 4th of July holiday period which is traditionally a high use period on these trails. Due to higher soil saturation levels and less overall firmness and stability in trail tread the likelihood of negative impacts (soil displacement, erosion, incising) is greater under this alternative. Additionally vehicles would be allowed multiple passes on the Swede Lake Trail within this alternative which would compound effects to the trail surface, possibly limit access to some users later in the year, and damage a trail system which BLM has invested significant dollars in over the years. Small portions of trails or very specific sections of trails could be subject to possible trail tread damage which could reduce recreational access for trail users.

3.3.4 Direct and Indirect Effects from Alternative 3

This alternative provides for seasonal date restrictions over the 4th of July time frame (July 3rd-July 6th) on specific trails which would alleviate possible access or recreational experience effects during this high use period. Based on historical observations by GFO employees, high use times for area trails include Memorial Day, Fourth of July, and Labor Day timeframes as well as the fall sport hunting season, September 1st through 20th. Filming could not occur on

Swede Lake Trail until June 15 allowing for an additional drying period for trail tread which would substantially reduce, but not completely eliminate, the likelihood of negative impacts to the trail. Additionally this alternative only permits for one pass in/out on Swede Lake Trail.

3.3.5 Cumulative Effects

There are no known cumulative effects for the No Action Alternative, Proposed Action Alternative, or Alternative 3. This is the first application that GFO has received in relation to commercial filming on area trails and it is not reasonably foreseeable that similar requests for filming or other commercial activities utilizing area trails will occur in the future.

3.3.6 Recommended Mitigation

It is recommended that BLM request a bond to ensure that any resulting impassable sections of trail be repaired so that recreational experiences of users accessing public lands is not disturbed.

3.4 ISSUE 4 - HOW WOULD THE PROPOSED ACTIVITY AND INTENSITY OF USE AFFECT OR ALTER TRAIL CONDITIONS

3.4.1 Affected Environment

Each trail under consideration has varying characteristics and features unique to its location. Coal Mine Road, located at mile 242.1 of the Richardson Highway, is constructed on highly compacted soils with adequate rock substrate forming a firm trail base. It has been periodically maintained with mechanized equipment and is generally passable to high clearance or four wheel drive vehicles. Erosion or rutting of the trail tread is uncommon. It is classified by BLM as a primitive road. Onemile Creek Trail is a user made trail located at mile 184.7 of the Richardson Highway. It has sections of durable trail interspersed with swampy or muddy sections. Portions of these sections have gravel interspersed with the soils which help to facilitate overland passage. Scouting and winching may be required to navigate some portions of this trail. It is classified by BLM as a trail. Swede Lake Trail, located at mile 16.5 of the Denali Highway, is classified by BLM as a primitive road. It has been extensively rebuilt and maintained by the BLM since 2001. The majority of the trail (through BLM maintenance actions) consists of elevated well drained trail tread however there are a few small mud holes, wet areas, and rock gardens. 54 Mile Trail, located at mile 54 of the Richardson Highway is a challenging trail that ascends quickly up the side of the Chugach Mountains. It is highly eroded and composed primarily of cobble size rock interstrewn with boulders. Above tree line it forms a two track trail interlaced with some braided sections in wetter sections. It is classified as a trail by the BLM.

3.4.2 Direct and Indirect Effects from No Action Alternative

There are no Direct or Indirect Effects from the No Action Alternative. The trail conditions would remain in their current state with minor variations due to frequency of use and seasonal weather events.

3.4.3 Direct and Indirect Effects from Proposed Action Alternative

The effects from the Proposed Action would vary trail to trail. Coal Mine Road would realize no effects. It consists of highly durable trail tread and is subject to intense and repeated use through the summer months. Onemile Creek Trail would experience negative effects (rutting, erosion, vegetation stripping) to the trail tread. Multiple passes with high pressure tires in a short timeframe will not provide a resting period for natural trail hardening achieved by water filtration through trail tread, reestablishment of vegetation mat, and evaporative drying of trail tread. Deteriorating trail conditions typically occur during the high use sport hunting season (September 1st-20th) and will develop earlier in the year under Proposed Action. The timeframe between the end of the permitted action and beginning of hunting season may not allow for some natural rehabilitation of trail tread. Swede Lake Trail would develop negative effects (rutting, erosion) to improved trail tread if utilized before June 15 and if multiple passes were allowed. Multiple passes with high pressure tires in a short timeframe will not provide a resting period for natural trail hardening achieved by water filtration through trail tread and evaporative drying of the trail route. 54 Mile Trail could see further erosion on steep sections of trail if multiple passes were attempted or activities occurred during periods of high precipitation.

3.4.5 Direct and Indirect Effects from Alternative 3

Coal Mine Road, 54 Mile Trail, and Onemile Creek Trail, would realize the same effects as the Proposed Action Alternative. Swede Lake Trail would see a significant reduction of effects to trail tread if activities occurred after June 15 and vehicles associated with filming activities were limited to one pass each.

3.4.4 Cumulative Effects

There are no known cumulative effects for the No Action Alternative, Proposed Action Alternative, or Alternative 3. This is the first application that GFO has received in relation to commercial filming on area trails and it is not reasonably foreseeable that similar requests for filming or other commercial activities utilizing area trails will occur in the future.

3.4.5 Recommended Mitigation

It is recommended that BLM request a bond to ensure that any resulting impassable sections of trail be repaired so that the trail tread condition existing prior to the permitted action is maintained.

It is also recommended that a BLM employee be present during all operations on BLM managed lands in order to monitor resource damage. If resource damage occurs to the point that the trail becomes impassable to the average user, the BLM employee shall halt operations.

3.5 ISSUE 5- HOW WOULD THE PROPOSED ACTION AFFECT HYDROLOGICAL AND SOIL RESOURCES ALONG THE PROPOSED TRAILS

3.5.1 Affected Environment

The proposed trails under consideration cross a variety of different soil properties even within very short distances. Soils may be organic, seasonally wet, or even subject to flooding. They may be shallow over bedrock or permafrost and may be naturally unstable for trail use but also could be stable, well drained, and well suited for ATV travel. Water in combination with certain soil types plays a major role in trail stability and can add to negative environmental problems that come with off-road vehicle use including: vegetation trampling and loss; soil compaction; soil erosion; and water quality degradation. In most cases the considered trails have been self-pioneered routes crossing a variety of topographical land features including wetlands, alpine tundra, steep slopes, rocks, muck holes, and other areas where soil conditions and water quality could be susceptible to negative impacts. A trail displays degradation when it is rutting, braiding, eroding soils, developing deep pools of water, etc. Degraded trails or trail segments develop when trail use exceeds the trails natural carrying capacity for ATV traffic. Segments of the trails considered display degradation or are subject to exceeding capacity depending on time of use or environmental conditions. The considered trails most suitable for off road travel are the Coal Mine Road trails with a more natural trail material with courser soils and Swede Lake Trail where routine BLM trail maintenance and hardening occurs. The trails least suitable and most susceptible to negative impacts are the 54 Mile trails where steep gradient is a major consideration with severe erosion potential and Onemile Creek Trail where trail materials are mostly fine with wet swampy conditions.

There are multiple small stream crossings on the trails under consideration. Each stream crossing adds to bank and bed erosion and increases sediment and turbidity in the water. Water degradation can increase in magnitude depending on time of year and discharge rates. Multiple crossings within short intervals could have downstream impacts if bank and bed materials are fine and flow rates are high with high sediment.

3.5.2 Direct and Indirect Effects from No Action Alternative

There are no Direct or Indirect Effects from the No Action Alternative. Random use of the trails would continue, and depending on magnitude and season of use, impacts to soils and water would be variable.

3.5.3 Direct and Indirect Effects from Proposed Action Alternative

The effects of the proposed action would vary depending on the trail used, season of use, and precipitation. Generally, if conditions are dry, there would be negligible degradation to the trail and to the soil and water resources (possible exception would be 54 Mile Trail). During early season use after snow melt, between May 15 and June 15, trails are still partially frozen causing a temporary barrier that does not allow excess water to drain. OHV travel can cause severe rutting and erosion during this period and should be allowed to thaw, drain, and dry before repeated use. All trails, to varying degrees, are susceptible to soil and water degradation during periods of high rainfall events. Continuous and short interval travel over a susceptible trail segment may result in displaced soil and vegetation, deep ruts, gullying, soil erosion, and water quality degradation. All considered trails have areas that are susceptible to unnecessary and undue degradation and purposely repeated travel for filming excitement, such as in muck holes, should be avoided.

The trail of greatest concern from the Proposed Action is 54 Mile Trail. It is a steeply graded trail that in some segments is questionable even to ATV travel. Introducing four wheel drive vehicles to the steeper segments of the trail will cause vegetation removal, deep rutting and rock sliding from spinning heavy traction tires, possible severe erosion, and probable heavy additions of sediment to nearby streams. Depending on trail and weather condition, extreme vehicle use could cause unrepairable trail and resource damage when subject to repeated short interval travel by four wheel drive vehicles. Onemile Trail is subject to increased and possible undue resource degradation with the repeated travel of four wheel drive vehicles if precipitation is heavy and trail conditions are wet and swampy. Certain segments of the remaining trails are also subject to unnecessary degradation due to these same conditions.

3.5.4 Direct and Indirect Effects from Alternative 3

This alternative offers seasonal date restrictions and restrictions on passes in and out per authorized vehicle. With the addition of best management practices the effects to soil and water should be greatly diminished with Alternative 3. Generally, if the soils are dry and stable the potential for compaction, rutting, and erosion will be greatly reduced. This would also result in less sediment to lakes and streams. Due to the steep gradient, the use of four wheel drive vehicles on the 54 Mile Trail is still at risk for trail degradation, soil erosion, mass rock/soil sliding, and potential sediment inputs to nearby streams.

3.5.5 Cumulative Effects

The Glennallen Field Office land base has seen a steady proliferation of trails resulting in increased loss of vegetation, soil compaction, soil erosion, and decreased water quality. Trail hardening techniques have proven to be successful in mitigating resource impacts, however, it would be impossible for BLM and other agencies or land owners to keep up with the increase in trails due to the expense of the procedure and man power limitations. Unless there are specific limitations on existing trail use and the creation of new trails there will continue to be increases in resource damage over the entire land base.

4.0 CONSULTATION AND COORDINATION

Ahtna Incorporated

Chickaloon Native Village

Dave Mushovic Assistant Field Manager, Anchorage Field Office

Ralph Brasner Navigable Waters Specialist, Alaska State Office

Jeff Kowalczyk Outdoor Recreation Planner, Anchorage Field Office

5.0 LIST OF PREPARERS

This EA was prepared by the Glennallen Field Office Interdisciplinary Team.

Sarah Bullock	Wildlife Biologist / Subsistence Biologist
Marnie Graham	Planning and Environmental Coordinator
John Jangala	Archaeologist
Cory Larson	Outdoor Recreation Planner
Ben Seifert	Natural Resource Specialist
Mike Sondergaard	Hydrologist

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